

Assessment of The Factors Contributing to Burnout Syndrome Among Select Public Primary School Teachers in Kenya

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ABSTRACT

The purpose of this study was to assess the factors that contribute to burnout syndrome among select public primary school teachers in Kilimani Zone, Nairobi County, Kenya. The study objectives were to assess the prevalence of burnout syndrome among primary school teachers and identify the factors that contribute to burnout among the teachers, establish the relationship between burnout syndrome and sociodemographic factors in primary school teachers. The target population was 387 teachers in Kilimani Zone, while the sample comprised 196 primary school teachers. The study applied a correlational research design. The validated Maslach Burnout Inventory (MBI) was adopted and used to assess the prevalence of burnout syndrome among teachers. Data was analyzed using the Statistical Package for Social Sciences (SPSS®), version 26. The results showed that teachers in Kilimani Zone were experiencing high levels of burnout syndrome. This was higher than the worldwide average, with 52% experiencing high levels of burnout syndrome and 48% moderate levels. Among the sociodemographic factors under consideration, having children ($p < 0.001$), length of teaching experience ($p < 0.001$), and student discipline ($p = 0.019$) were found to have significantly significant difference with burnout syndrome. Increased workload ($p = 0.011$), teaching beyond school hours ($p = 0.042$), and carrying schoolwork home ($p = 0.001$) were established as the main contributors to burnout syndrome.

INTRODUCTION

Burnout syndrome is defined as a response to prolonged unmanaged work-related stress which develops gradually over a period of time (Maslach, 1976). The term “burnout” was first used by Freudenberger (1974) to describe a phenomenon that he witnessed in both himself and his colleagues as they worked at institutions for drug addicts. He defined burnout as symptoms of physical, psychological, and behavioural exhaustion occurring within a work environment. In subsequent work, Freudenberger and Richelson (1980) described it as a state of fatigue or frustration caused by dedication to a way of life, relationship, or cause that failed to generate expected rewards. It involves a loss of initial enthusiasm due to emotional disengagement.

Burnout syndrome comprises three separate dimensions: emotional exhaustion, depersonalization, and the feeling of reduced personal accomplishment. According to Friedman (1995), burnout begins with emotional exhaustion. As emotional exhaustion increases, individuals begin to depersonalize their clients or colleagues. Eventually, they feel like they are not making a difference in their work or achieving the change they desire to see in their clients. Their sense of personal accomplishment starts to diminish.

According to Maslach and Jackson (1981), depersonalization involves cynicism and disengagement with people and work. An individual finds work unpleasant, unfulfilling, and meaningless. Maslach (1998) referred to it as the dehumanization of perception. In teaching, depersonalization leads to disengagement with pupils and fellow teachers. Reduced personal accomplishment or efficacy arises from negative self-evaluation in relation to performance at work and self, leading to lowered self-esteem. Individuals lose confidence in their professional competency, resulting in feelings of failure on the professional front. Teachers experiencing burnout syndrome start to believe that they are not effective and nothing they do can

make a difference for their students (Schaufeli et al., 1993).

Teaching is considered one of the most demanding professions globally. In a survey of occupational stress levels, teaching was ranked second only to ambulance drivers out of 26 surveyed professions (Šebková, 2015). A teacher is the medium of delivery of teaching outcomes and therefore, positive teaching outcomes are heavily dependent on the ability of the teacher. This emanates from their professional training, on the job experience as well as superior inter and intrapersonal skills which facilitates them to deal with a range of pupils needs. In addition, they require appropriate skills to deal with the professional colleagues, administration and pupil's parents/guardians in their line of duty. The teacher has therefore to be in good health psychologically, physically and socially to be able to deliver expected positive outcomes (Kamaljeet, 2014 & Zawadzka, et al, 2018).

The long-term nature and close emotional involvement between a teacher and a large number of students can have a negative impact on the emotional and physical well-being of the teacher. According to Leiter and Maslach (2016), close interaction with clients over an extended period of time leads to increased occurrences of burnout syndrome among those who work in human services. By the very nature of the profession, teachers' interaction with pupils lasts over long periods of time, from when they join school until when they exit.

Teachers get into the teaching profession eager to pass on knowledge and mould young ones (Šebková, 2015). Initially, they experience reward and satisfaction but soon after, begin to face the challenges of a poor work environment, unsupportive school administration, lack of social support, occasionally, lack of respect from the pupils, undisciplined difficult students. In addition, there may be limited teaching resources, overcrowded classes, work overload, inadequate remuneration, and high performance expectations (Tunde & Onabanjo, 2013). All these lead to feelings of dissatisfaction, inadequacy, anger, discouragement, and eventually hopelessness. They feel like they are not achieving the outcomes they expected with their students. This leads to lowered self-esteem and depressive symptoms, disillusionment, and ultimately burnout syndrome (Jackson, 2004).

Usually, teachers are not sufficiently remunerated and work without due acknowledgement, leading to stress and, eventually, burnout syndrome among them (Montgomery et al., 2005; Silva et al., 2015).

Primary school teachers lay the foundation for every other formal learning that occurs in an individual's life. Therefore, it is very important that they lay the right foundation. To be able to perform this important role in society, teachers must not only be professionally skilled but also possess the emotional resources to deal with the emotional demands of their jobs effectively (Al-Asadi et al., 2018). Research has established that factors such as teaching aid in class, preparedness, motivation, punctuality of teachers, and marking of learners' exercises are key to learners' academic achievement (Silva et al., 2015). Teacher characteristics such as qualifications and demographic characteristics (gender, age, education, and marital status) influence both teaching and learning in the classroom, placing a heavy burden on the teacher (Kathuri, 2014).

Globally, the estimated prevalence of burnout among primary school teachers is 30%, which is not a preserve of developing countries (Arvidsson et al., 2016; Heinemann & Heinemann, 2017; Rumschlag, 2017). The prevalence of burnout syndrome among teachers in USA was found to be 30% (Rumschlag, 2017). In Kenya, burnout syndrome amongst primary school teachers is indicated as high according to various studies. For instance, Waithanji (2014) established that the prevalence of burnout is as high as 85%, while Njoroge (2015) indicated that burnout prevalence is at 67% in Kenya. This calls for an investigation of the factors contributing to this high level of burnout among primary school teachers to inform policy, practice, and interventions.

According to Luk et al. (2010), burnout syndrome amongst teachers has negative effects including poor

performance, ill health, absenteeism, and attrition. Teacher attrition is the term used when teachers leave the profession before retirement age. This is of great concern to education administrators since replacing them (teachers) is expensive and the experience they have gained is lost once they leave (Yu et al., 2015). Ill health of teachers due to physical symptoms like flu and headaches leads to increased absenteeism and poor interpersonal relationships among them (John, 2007).

Burke and Greenglass (1993) found that work-related stressors like work overload, student misbehaviour, and role expectations, which in teachers' opinion are not within their control, were strong predictors of teacher burnout. Demographic characteristics such as school level, gender, type of position, age, presence of children, education, years of teaching, marital status, role conflict, and social support had very little contribution to the development of burnout. Moreover, Burke and Greenglass stated that the main contributors to burnout between the male and female gender were different. Female teachers cited marital satisfaction, work sources of stress, and social support as the main contributors to burnout, while male teachers mentioned doubts about competence and problems with students. Kokkinos (2007) noted other factors that may contribute to teachers being prone to burnout syndrome, including lack of participation in decision making within the school environment or policy matters affecting their work, lack of facilities, poor pay, and lack of respect for their work.

According to Ptáček et al. (2019), other factors that could contribute to burnout syndrome among teachers are student discipline, lack of autonomy, lack of respect from superiors, and increased workload. Jensen and Solheim (2020) observed that teachers in classroom environments with poor student discipline have a high risk of burnout syndrome than their peers in high discipline class environments. Furthermore, a high student-to-teacher ratio in a class and having disrespectful superiors were risk factors for burnout syndrome amongst teachers (Al-Asadi et al., 2018; Li et al., 2020).

The burnout prevalence amongst teachers is estimated to be between 25-35% in Europe (Arvidsson et al., 2016), 30% in USA (Rumschlag, 2017), 21% in some African countries such as Tunisia (Chennoufi et al., 2012), and 46% in Kenya (Ambunya, 2020). In the USA, one of the effects of burnout syndrome among teachers is attrition. When they can no longer bear it, many teachers choose to leave the profession. Therefore, there is a correlation between burnout and attrition (Rumschlag, 2017). Teacher turnover in the USA is 30%, higher than that of other professions like nursing, police, lawyers, architects, engineers, and pharmacists. According to the US Department of Education, half of the new teachers who join the teaching profession leave within five years, with 60% of those who leave citing a better work-life balance as their reason for leaving (Rumschlag, 2017). Unlike teaching, their second professions do not require them to undertake work-related tasks when they are not at work. Of those who left in 2012/13, 57% said that their new jobs offered more control and autonomy. Thus, there is a relationship between the level of control and autonomy in carrying out one's job and burnout and attrition (Rumschlag, 2017).

In a study on burnout syndrome among Tunisian teachers, the burnout prevalence was found to be 21% (Chennoufi et al., 2012). Majority of the teachers (66.4%) attributed their burnout to work-related stressors, poor working conditions, work overload, administrative difficulties, difficulties with pupils and their parents, and organizational factors. The study focused more on the organizational factors that contribute to burnout. Research conducted by Louw et al. (2011) among secondary school teachers showed that the prevalence of burnout syndrome in Namibia is similar to that of other countries in the world, standing at 25%. Length of experience was the demographical factor more positively related to burnout syndrome; other factors did not have much effect.

Waithanji (2014) carried out a study on the impact of teacher burnout among secondary school teachers in Nyeri, Kenya. The factors that affected the development of burnout syndrome included the level of education of the teacher, with burnout symptoms being higher among the least educated and highly educated teachers. Among those with master's and doctorate degrees, 37.5% had high levels of burnout syndrome,

while 62.5% had mild. Of those with bachelor's degrees, 45.7% had high levels of burnout syndrome and 18.6% had mild. In addition, 43.3% of those holding diplomas had high levels of burnout syndrome and 41.7% had mild levels (Waithanji, 2014). Student discipline, student performance, and interpersonal relationships within the school and the school environment were some of the major factors contributing to burnout syndrome.

Student performance is negatively affected by burnout symptoms in teachers as they lack motivation (Wang'eri & Okello, 2014). Motivated teachers are driven to go the extra mile to support their students in performing their best. This may include providing personalized support to students who may require extra help to succeed and teaching extra time to complete the syllabus. Musili (2015), in a study conducted in Kibwezi, Kenya, noted that motivated teachers spend extra time with weak students, giving them extra work and ensuring they understand their lessons.

In acknowledging the central role played by teachers in the achievement of learning outcomes in students, the well-being of teachers and their experience of burnout is the interest of this study.

METHODOLOGY

This study applied a correlational research design, which is a design that enables a study to measure the relationship between two variables without the researcher controlling either of them (Fisher, 2017). This design was considered appropriate for the study as the study sought to assess the relationship between burnout syndrome and sociodemographic factors such as age, gender, marital status, and education level of primary school teachers in Kilimani Zone, Westlands Sub-County in Nairobi County. The target population for this study comprised of all (387) public primary school teachers teaching in the 12 public primary schools in Kilimani Zone, Westlands Sub-County in Nairobi County.

The sample size for this study was calculated using the formula by Yamane (1967), which is:

To make the selected sample manageable for the study, a significance level of 5% was selected. The calculation for the sample size is indicated below:

Therefore, the sample size for the study was 196 teachers. These were distributed to the 12 public primary schools depending on the population distribution. This study used proportional stratified random sampling because the population is not homogenous. The 12 public primary schools formed the different strata while the teachers' gender in each school was also stratified. The researcher developed a sampling frame which was a list of all the teachers in each of the 12 schools. The teachers in the list were categorized into male and female teachers and a number was assigned to each of them. Then, random sampling, through the use of random numbers, was used to select the teachers from each school that would participate in the study until the sample for that school and category was satisfied. This procedure continued until all the 12 schools and 196 teachers were covered.

Data Collection Instruments

A self-administered questionnaire was used to collect data for this study. A researcher-developed questionnaire was used to collect sociodemographic information on age, gender, marital status, family size and age of children, level of education, and length of teaching experience and to assess the workload and teachers' perception of their work and the working environment, including satisfaction with pay, perception about their path for career progression, autonomy and decision making, and existence and effectiveness of social support systems. The validated MBI scale was used to collect data on the prevalence of burnout syndrome among teachers.

Maslach and Jackson (1981) developed one of the most widely used tools in the measurement of burnout syndrome, the MBI. The MBI has been used in about 95% of studies on burnout syndrome (De Silva et al., 2009). Every item in the MBI is scored on a scale of 0 to 6. Then the total for each part is summed up for each research participant. For the exhaustion category, a total of 17 or less indicates low-level burnout, between 18 and 29 indicates moderate burnout, and a score above 30 indicates high-level burnout syndrome. For depersonalization, a total of 5 or less denotes low-level burnout, between 6 and 11 moderate burnout, while 12 and above denotes high-level burnout. For personal achievement, a total of 33 or less signifies high-level burnout, between 34 and 39 moderate burnout, and above 40 low-level burnout (Maslach & Jackson, 1981).

This study was approved by the Daystar University Ethics and Research Board, the National Commission for Science, Technology and Innovation, Kenya as well as the relevant education authorities. Each participant voluntarily gave informed consent to participate after being informed of what participation would entail. The potential risk involved was the psychological discomfort of facing uncomfortable feelings related to one’s job as one responded to the questionnaire. To maintain anonymity, the questionnaire did not have any identifier linking the participant to a specific questionnaire.

Data Analysis

The Statistical Package for Social Sciences (SPSS®), version 26 was used for analysis. Correlation analysis was applied to identify the factors that contribute to the development of burnout syndrome, while regression analysis was applied to evaluate the relationship between sociodemographic factors and burnout syndrome amongst the teachers.

RESULTS

Response Rate

The study’s target population comprised 387 teachers and the selected sample 196 (71 male and 125 female). From the selected sample, 132 questionnaires were returned, of which seven were incomplete and could not be analysed. As such, 125 out of 196 complete responses were obtained, translating to a response rate of 64%.

Sociodemographic Characteristics of the Respondents

The study sought to establish the sociodemographic characteristics of the respondents, and the results are shown in Table 1.

Table 1: Socio-demographic Characteristics of the Respondents

| Variable | Category | Frequency (N=125) | Percent |
|----------------|--------------------------|-------------------|---------|
| Gender | Male | 53 | 42.4 |
| | Female | 72 | 57.6 |
| Age in years | 21-30 | 38 | 30.4 |
| | 31-40 | 43 | 34.4 |
| | 41 and above | 44 | 35.2 |
| Marital status | Married/with a partner | 67 | 53.6 |
| | Single/without a partner | 58 | 46.4 |

| | | | |
|---------------------|-------------------|----|------|
| Has children | No | 35 | 28.0 |
| | Yes | 90 | 72.0 |
| Number of children | 0 | 35 | 28.0 |
| | 1 | 33 | 26.4 |
| | 2 | 36 | 28.8 |
| | 3+ | 21 | 16.8 |
| Age of the children | Less than 3 years | 17 | 18.9 |
| | 3- 5 years | 23 | 25.6 |
| | 5- 10 years | 25 | 27.8 |
| | 10- 18 years | 19 | 21.1 |
| | Over 18 years | 6 | 6.7 |
| | N/A | 35 | |
| Level of education | Certificate | 22 | 17.6 |
| | Diploma | 78 | 62.4 |
| | Bachelors/masters | 25 | 20.0 |

Work Related Characteristics of the Respondents

The study further aimed to determine the respondents' work-related characteristics. In the second part of the questionnaire, respondents were asked to provide information on their work experience and their workload. The findings are presented in Table 2.

Table 2: Work Related Characteristics of the Respondents

| Variable | Category | Frequency (N=125) | Percent |
|--|-------------------|-------------------|---------|
| Teaching Experience | 0-5 years | 40 | 32.0 |
| | 5-10 | 43 | 34.4 |
| | 10-15 | 28 | 22.4 |
| | 15+ | 14 | 11.2 |
| Lessons taught in a week | Less than 35 | 16 | 13.0 |
| | 35-40 | 74 | 60.2 |
| | 41+ | 33 | 26.8 |
| | Non-response | 2 | |
| Carry work home | No | 10 | 8.0 |
| | Yes | 115 | 92.0 |
| Frequency of working at home | Daily | 29 | 25.2 |
| | Twice a week | 44 | 38.3 |
| | Thrice a week | 34 | 29.6 |
| | Four times a week | 8 | 7.0 |
| | N/A | 10 | |
| Teach outside of the official school hours | Yes | 65 | 52.0 |
| | No | 60 | 48.0 |
| Hours per week | Less than 3 hours | 16 | 24.6 |
| | 3-5 hours | 34 | 52.3 |

| | | |
|--------------|----|------|
| Over 5 hours | 15 | 23.1 |
| N/A | 60 | |

Respondents’ View of Work-related Factors that Contribute to Burnout Syndrome

The study requested respondents to rate work-related factors that have the potential to contribute to the development of burnout syndrome. The ratings of the results of the work-related factors are depicted in Table 3.

Table 3: Respondents’ View of Work-related Factors that Contribute to Burnout Syndrome

| Rating of Work-Related Factors | Poor | Average | Good | Very Good | nr | Mean ±SD |
|------------------------------------|---------|----------|----------|-----------|----|-------------|
| | n (%) | n (%) | n (%) | n (%) | | |
| Student discipline | 4(3.2) | 26(21.0) | 57(46.0) | 37(29.8) | 1 | 3.0±0.8 |
| Support by school administration | 4(3.2) | 33(26.6) | 55(44.4) | 32(25.8) | 1 | 2.9±0.8 |
| Support by parents | 2(1.6) | 46(37.1) | 64(51.6) | 12(9.7) | 1 | 2.7±0.7 |
| Staff development programs | 9(7.3) | 42(33.9) | 64(51.6) | 9(7.3) | 1 | 2.6±0.7 |
| Social/ Peer support and mentoring | 8(6.5) | 50(40.7) | 58(47.2) | 7(5.7) | 2 | 2.5±0.7 |
| Adequacy of salary | 7(5.7) | 62(50.4) | 51(41.5) | 3(2.4) | 2 | 2.4±0.6 |
| Opportunity for Career progression | 10(8.0) | 50(40.0) | 58(46.4) | 7(5.6) | 0 | 2.5±0.7 |
| Autonomy in Decision making | 11(8.9) | 51(41.1) | 48(38.7) | 14(11.3) | 1 | 2.5±0.8 |

Note: nr-Non-response; SD- Standard Deviation

Prevalence of Burnout Syndrome among Public Primary School Teachers in Kilimani Zone, Westlands Sub-County, Nairobi County, Kenya

The MBI was used to assess the prevalence of the three dimensions of burnout syndrome: emotional exhaustion, depersonalization, and personal accomplishment.

Mean and standard deviations to individual responses to items on MBI sub-scales

The means and standard deviations to individual responses on items on MBI are portrayed in Table 4. For the emotional exhaustion subscale with 9 items, the mean was 32.7; S.D of 6.4. For the depersonalization subscale with 5 items, the mean was 18.1; S.D of 4.4. For the personal accomplishment subscale with 8 items, the mean was 27.4; S.D of 6.8.

Table 4: Mean and Standard Deviations to Individual Responses to Items on MBI Sub-scales

| Emotional exhaustion items | Range | Mean±SD |
|---|-------|---------|
| I feel emotionally drained by my work | 0-6 | 4.4±1.4 |
| Working with students all day long requires a great deal of effort. | 1-6 | 2.9±1.6 |
| I feel like my work is breaking me down. | 0-6 | 3.4±1.7 |
| I feel frustrated by my work. | 0-6 | 3.8±1.9 |
| I feel I work too hard at my job. | 0-6 | 3.8±1.6 |
| It stresses me too much to work in direct contact with students. | 0-6 | 3.5±1.5 |

| | | |
|--|-------|----------|
| I feel like am at the end of my rope. | 0-6 | 3.8±1.9 |
| I am at the end of my patience at the end of my workday. | 1-6 | 3.7±2.1 |
| I feel tired when I get up in the morning and have to face another day at work. | 0-6 | 3.7±1.6 |
| Mean | | 32.7±6.4 |
| Depersonalization items | Range | Mean±SD |
| I have the impression that my students make me responsible for some of their problems. | 1-6 | 3.7±1.6 |
| I feel I deal with certain students impersonally, as if they are objects. | 0-6 | 3.8±1.7 |
| I really do not care about what happens to some of my students. | 0-6 | 3.5±1.7 |
| I have become more insensitive to people since have been working. | 0-6 | 3.6±1.9 |
| I am afraid that this job is making me uncaring. | 0-6 | 3.6±2.0 |
| Mean | | 18.1±4.4 |
| Personal accomplishment items | Range | Mean±SD |
| I accomplish many worthwhile things in this job. | 0-6 | 3.6±1.7 |
| I feel full of energy. | 0-6 | 3.2±1.6 |
| I am easily able to understand what my patients/clients feel. | 1-6 | 3.4±1.7 |
| I look after my patients/clients' problems very effectively. | 0-6 | 3.6±1.7 |
| In my work, I handle emotional problems very calmly. | 0-6 | 3.4±1.7 |
| Through my work, I feel that I have a positive influence on people. | 0-6 | 3.3±1.8 |
| I am easily able to create a relaxed atmosphere with my patients/clients. | 0-6 | 3.6±1.7 |
| I feel refreshed when I have been close to my patients/ clients at work. | 0-6 | 3.5±1.8 |
| Mean | | 27.4±6.8 |

Prevalence of burnout syndrome among the respondents

The levels of burnout syndrome, in its three dimensions, and its prevalence, characterised by high emotional exhaustion, high depersonalization, and low personal achievement, are shown in Table 5.

Table 5: Prevalence of Burnout Syndrome

| MBI domain | Levels | Frequency (N=125) | Percent | 95% C. I | |
|-------------------------|-----------------|-------------------|---------|----------|-------|
| | | | | Lower | Upper |
| Emotional Exhaustion | Low degree | 1 | 0.8 | 0 | 2.4 |
| | Moderate degree | 36 | 28.8 | 21.6 | 36.8 |
| | High degree | 88 | 70.4 | 62.4 | 77.6 |
| Depersonalization | Low degree | 1 | 0.8 | 0 | 2.4 |
| | Moderate degree | 7 | 5.6 | 2.4 | 9.6 |
| | High degree | 117 | 93.6 | 88.8 | 96.8 |
| Personal Accomplishment | Low degree | 103 | 82.4 | 76 | 88.8 |
| | Moderate degree | 21 | 16.8 | 10.4 | 23.2 |
| | High degree | 1 | 0.8 | 0 | 2.4 |
| Burnout syndrome | Low burnout | 60 | 48 | 39.2 | 56.8 |
| | High burnout | 65 | 52 | 43.2 | 60.8 |

Note: The 95% confidence interval is for the prevalence (%)

The findings depicted in Table 5 show that for emotional exhaustion dimension, 70.4% (95% C.I 62.4-77.6) of the respondents had high level of burnout syndrome, 28.8% (95% C.I 21.6-36.8) had moderate level, and 0.8% (95% C.I 0-2.4) had low level. For the dimension of depersonalization, 93.6% (95% C.I 88.8-96.8) of the respondents had high level, 5.6% (95% C.I 2.4-9.6) had moderate level, and 0.8% (95% C.I 0-2.4) had low level. On personal accomplishment, 0.8% (95% C.I 0-2.4) of the respondents had high level, 16.8% (95% C.I 10.4-23.2) had moderate level, and 82.4% (95% C.I 76-88.8) had low level. Respondents with high levels of emotional exhaustion and depersonalization and low level of personal accomplishment were at 52% (95% C.I 43.2-60.8). Burnout syndrome was determined by a person experiencing high emotional exhaustion, high depersonalization, and low personal accomplishment. The prevalence of high burnout syndrome was 52% (n=65) and low burnout syndrome was 48% (n=60).

Factors that Contribute to Burnout Syndrome among Public Primary School Teachers in Kilimani Zone, Westlands Sub-County, Nairobi County, Kenya

The findings were analysed using ANOVA (bivariate) and were as presented in Table 6.

Table 6: Association between Emotional Exhaustion, Personal Accomplishment, and Depersonalization and Socio-demographic Characteristics

| Variable | Category | N | Emotional Exhaustion | | Depersonalization | | Personal Accomplishment | |
|----------------|-------------------|----|----------------------|---------|-------------------|---------|-------------------------|---------|
| | | | Mean | p-value | Mean | p-value | Mean | p-value |
| | | | ±SD | | ±SD | | ±SD | |
| Gender | Male | 53 | 33.2 | 0.46 | 18.6 | 0.328 | 28.6 | 0.101 |
| | | | ±7.3 | | ±4.3 | | ±7.0 | |
| | Female | 72 | 32.3 | | 17.8 | | 26.6 | |
| | | | ±5.7 | | ±4.5 | | ±6.5 | |
| Age in years* | 21-30 | 38 | 33.1 | 0.843 | 17.6 | 0.678 | 28 | 0.564 |
| | | | ±6.5 | | ±4.1 | | ±5.8 | |
| | 31-40 | 43 | 32.7 | | 18.5 | | 27.9 | |
| | | | ±6.2 | | ±4.4 | | ±7.1 | |
| | 41 and above | 44 | 32.3 | | 18.2 | | 26.6 | |
| | | | ±6.7 | | ±4.8 | | ±7.2 | |
| Marital status | Married | 67 | 32.9 | 0.698 | 18.3 | 0.673 | 27.1 | 0.598 |
| | /with a partner | | ±6.6 | | ±4.5 | | ±6.9 | |
| | Single/ | 58 | 32.4 | | 17.9 | | 27.8 | |
| | without a partner | | ±6.3 | | ±4.4 | | ±6.6 | |
| Has children | No | 35 | 26.3 | <0.001 | 16.4 | 0.006 | 23.9 | <0.001 |
| | | | ±5.3 | | ±4.5 | | ±7.8 | |
| | Yes | 90 | 35.1 | | 18.8 | | 28.8 | |
| | | | ±5.0 | | ±4.2 | | ±5.8 | |

| | | | | | | | | |
|--|-------------------|-----|------|--------|------|-------|------|--------|
| Level of education | Certificate | 22 | 32.4 | 0.978 | 17.9 | 0.272 | 27 | 0.553 |
| | | | ±5.9 | | ±4.0 | | ±6.2 | |
| | Diploma | 78 | 32.7 | | 18.6 | | 27.9 | |
| | | | ±5.7 | | ±4.2 | | ±6.3 | |
| | Bachelors/Masters | 25 | 32.8 | | 16.9 | | 26.3 | |
| | | | ±8.8 | | ±5.3 | | ±8.5 | |
| Teaching experience | 0-5 years | 40 | 33.8 | <0.001 | 18 | 0.016 | 27.2 | 0.002 |
| | | | ±6.3 | | ±4.1 | | ±5.9 | |
| | 05-Oct | 44 | 35.7 | | 19.6 | | 30.1 | |
| | | | ±4.8 | | ±3.9 | | ±5.1 | |
| | Oct-15 | 27 | 29 | | 16.6 | | 25.7 | |
| | | | ±6.0 | | ±4.1 | | ±8.1 | |
| | 15+ | 14 | 26.9 | | 16.6 | | 23.1 | |
| | | | ±5.2 | | ±6.2 | | ±8.0 | |
| Lessons taught in a week | Less than 35 | 16 | 28.8 | 0.015 | 15.1 | 0.003 | 24.1 | 0.049 |
| | | | ±9.2 | | ±4.7 | | ±8.1 | |
| | 35- 40 | 74 | 33.7 | | 19 | | 28.4 | |
| | | | ±5.1 | | ±4.2 | | ±5.9 | |
| | 41+ | 33 | 32.1 | | 17.5 | | 26.7 | |
| | | | ±6.9 | | ±4.4 | | ±7.6 | |
| Carry work home | No | 10 | 22.7 | <0.001 | 15 | 0.02 | 19.3 | <0.001 |
| | | | ±2.2 | | ±4.9 | | ±7.7 | |
| | Yes | 115 | 33.5 | | 18.4 | | 28.2 | |
| | | | ±5.9 | | ±4.3 | | ±6.2 | |
| Teach outside of the official school hours | Yes | 66 | 34.5 | 0.001 | 18.7 | 0.119 | 28.3 | 0.122 |
| | | | ±6.1 | | ±4.6 | | ±6.6 | |
| | No | 59 | 30.6 | | 17.5 | | 26.5 | |
| | | | ±6.2 | | ±4.2 | | ±6.9 | |

Note: *One-way analysis of variance (ANOVA)

Emotional exhaustion

As per the findings covered in Table 6, gender, age, marital status, and level of education had no significant effect on emotional exhaustion. However, respondents who had children had significantly higher levels of emotional exhaustion compared to their counterparts without children, 35.1±5.0 versus 26.3±5.3 (p<0.001).

Respondents with less teaching experience had significantly higher levels of emotional exhaustion compared to those with more teaching experience, 33.8 ± 6.3 versus 26.9 ± 5.2 ($p < 0.001$). Participants who had more than 35 teaching lessons per week had significantly higher levels of emotional exhaustion compared to those with fewer lessons, 33.7 ± 5.1 versus 28.8 ± 9.2 ($p = 0.015$). Those who carried their work home had significantly high levels of emotional exhaustion compared to those who do not, 33.5 ± 5.9 versus 22.7 ± 2.2 ($p < 0.001$). Further, those who teach outside office hours had significantly higher levels of emotional exhaustion compared to those who do not, 34.5 ± 6.1 versus 30.6 ± 6.2 ($p = 0.001$).

Depersonalization

The respondents' gender, age, marital status, and level of education and teaching outside official working hours had no significant effect on depersonalization. Respondents who had children had significantly high levels of depersonalization, 18.8 ± 4.2 versus 16.4 ± 4.5 ($p = 0.006$), compared to those who had no children. Respondents with less teaching experience had significantly higher levels of depersonalization as compared to those with more teaching experience, 18.0 ± 4.1 versus 16.6 ± 6.2 ($p = 0.016$). Those who had more than 35 teaching lessons per week had significantly high levels of depersonalization compared to those with fewer lessons, 19.0 ± 4.2 versus 15.1 ± 4.7 ($p = 0.003$), while those who carried their work home had significantly high levels of depersonalization compared to those who do not, 18.4 ± 4.3 versus 15.0 ± 4.9 ($p = 0.020$).

Personal accomplishment

The respondents' gender, age, marital status, and level of education and teaching outside official working hours had no significant effect on personal accomplishment. Respondents who had children had significantly high levels of personal accomplishment, 28.8 ± 5.8 versus 23.9 ± 7.8 ($p < 0.001$), as compared to those who had no children. Respondents with less teaching experience had significantly high levels of personal accomplishment compared to those with more teaching experience, 27.2 ± 5.9 versus 23.1 ± 8.0 ($p = 0.002$). Those who had more than 35 teaching lessons per week had significantly high levels of personal accomplishment as compared to those with fewer lessons, 28.4 ± 5.9 versus 24.1 ± 8.1 ($p = 0.049$), while those who carried their work home had significantly high levels of personal accomplishment compared to those who do not, 28.2 ± 6.2 versus 19.3 ± 7.7 ($p < 0.001$).

Correlation between emotional exhaustion, depersonalization, and personal accomplishment and work-related factors

Correlation analysis was used to determine the contribution of school factors to the development of burnout syndrome among teachers. The results were as indicated in Table 7.

Table 7: Correlation between Emotional Exhaustion, Depersonalization and Personal Accomplishment Work-related Factors

| Correlations | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------------------------------|-------------|-------------|-------|-------------|---|---|---|---|---|----|----|
| Emotional exhaustion scores | 1 | | | | | | | | | | |
| Depersonalization scores | 0.355 ** | 1 | | | | | | | | | |
| Personal accomplishment Scores | 0.374 ** | 0.455 ** | 1 | | | | | | | | |
| Student discipline | 0.280 ** | 0.154 | 0.070 | 1 | | | | | | | |
| Support by school administration | 0.163 | 0.039 | 0.043 | 0.486 ** | 1 | | | | | | |

| | | | | | | | | | | | |
|------------------------------------|--------|----------|----------|---------|---------|--------|---------|---------|---------|---------|---|
| Support by parents | -0.003 | -0.089 | -0.179* | 0.363** | 0.382** | 1 | | | | | |
| Staff development programs | 0.087 | -0.149 | -0.177* | 0.249** | 0.155 | 0.132 | 1 | | | | |
| Social/peer support and mentoring | -0.005 | 0.014 | 0.111 | 0.130 | 0.264** | 0.214* | 0.339** | 1 | | | |
| Adequacy of salary | -0.088 | -0.255** | -0.237** | 0.135 | 0.010 | 0.138 | 0.298** | 0.208* | 1 | | |
| Opportunity for career progression | 0.056 | -0.012 | 0.053 | 0.189* | 0.284** | -0.005 | 0.343** | 0.363** | 0.301** | 1 | |
| Autonomy in decision making | -0.005 | -0.053 | -0.058 | 0.183* | 0.196* | 0.106 | 0.350** | 0.273** | 0.279** | 0.414** | 1 |

Note: **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level (2-tailed).

The results outlined in Table 7 show that there was a significant positive correlation between student discipline and emotional exhaustion scores ($r=0.280, p<0.001$). On the other hand, there was a significant negative correlation between depersonalization scores and adequacy of salary ($r= -0.255, p<0.001$). Significant negative correlations were also observed between personal accomplishment scores and support by parents ($r=-0.179, p<0.01$), staff development programs ($r= -0.177, p<0.01$), and adequacy of salary ($r=-0.237, p<0.001$). Support by the school administration, social/peer support and mentoring, opportunity for career progression, and autonomy in decision making did not have a significant contribution to emotional exhaustion, depersonalization, or personal accomplishment among the respondents.

Predictors of Emotional Exhaustion, Personal Accomplishment, and Depersonalization (Multivariate)

Table 8 demonstrates the predictors of emotional exhaustion, personal accomplishment, and depersonalization (multivariate analysis).

Table 8: Predictors of Emotional Exhaustion, Personal Accomplishment, and Depersonalization (Multivariate analysis)

| Variable | Category | Emotional Exhaustion | | Depersonalization | | Personal Accomplishment | |
|--------------------------|--------------|----------------------|---------|--------------------|---------|-------------------------|---------|
| | | B[95% C.I] | p-value | B[95% C.I] | p-value | B[95% C.I] | p-value |
| Has children | No | -6.30[-8.51; -4.09] | <0.001 | -0.72[-2.71; 1.26] | 0.476 | -1.30[-4.13; 1.54] | 0.370 |
| | Yes | Ref. | | Ref. | | Ref. | |
| Teaching experience | 0-5 years | 3.31[0.09;6.54] | 0.044 | -0.57[-3.37; 2.24] | 0.692 | 2.21[-1.88; 6.30] | 0.290 |
| | 5-10 | 2.84[-0.52; 6.20] | 0.098 | 0.53[-2.39; 3.44] | 0.724 | 4.80[0.57; 9.04] | 0.026 |
| | 10-15 | -0.42[-3.70; 2.85] | 0.800 | -1.55[-4.40; 1.30] | 0.286 | 1.73[-2.41; 5.88] | 0.412 |
| | 15+ | Ref. | | Ref. | | Ref. | |
| Lessons taught in a week | Less than 35 | 3.04[-1.17; 7.24] | 0.157 | -1.61[-5.49; 2.27] | 0.416 | -3.82[-9.26; 1.62] | 0.169 |

| | | | | | | | |
|--|---------|--------------------|-------|---------------------|-------|----------------------|-------|
| | 35- 40 | 3.20[-0.64; 7.04] | 0.102 | 1.42[-2.14; 4.98] | 0.434 | -1.74[-6.83; 3.35] | 0.502 |
| | 41-45 | 2.76[-1.19; 6.71] | 0.170 | 0.25[-3.41; 3.91] | 0.894 | -2.99[-8.26; 2.28] | 0.266 |
| | Over 46 | Ref. | | Ref. | | Ref. | |
| Carry work home | No | -2.96[-6.36; 0.43] | 0.087 | -1.19[-4.26; 1.88] | 0.446 | -5.74[-10.11; -1.37] | 0.010 |
| | Yes | Ref. | | Ref. | | Ref. | |
| Teach outside of the official school hours | Yes | 2.04[0.40; 3.69] | 0.015 | — | — | — | — |
| | No | Ref. | | — | — | — | — |
| Students discipline | Score | 0.60[-0.44; 1.63] | 0.259 | — | — | — | — |
| Adequacy of salary | Score | — | | -1.68[-2.79; -0.57] | 0.003 | -1.22[-2.86; 0.43] | 0.146 |
| Support by parents | Score | — | — | — | — | -1.79[-3.33; -0.24] | 0.024 |
| Staff development programs | Score | — | — | — | — | -1.55[-3.04; -0.07] | 0.040 |

Note: ? -Regression coefficient estimate; C.I-Confidence interval; Ref-Reference category

After controlling all the factors that were associated with emotional exhaustion, depersonalization, and personal accomplishment at the bivariate level ($P < 0.05$), employing a generalized linear model, using an identity link, and setting the level of significance at $P < 0.05$, the following factors were associated with the three dimensions of burnout syndrome:

Emotional exhaustion

As shown by the results in Table 8, participants without children had significantly lower levels of emotional exhaustion ($B = -6.30$ 95% C.I -8.5; -4.09; $p < 0.001$) compared to those with children. Respondents with teaching experience of 0-5 years had significantly higher levels of emotional exhaustion ($B = 3.31$ 95% C.I 0.09; 6.54; $p = 0.044$) compared to those with 15+ years of teaching experience. Respondents who were teaching outside school hours had significantly high levels of emotional exhaustion ($B = 2.04$ 95% C.I 0.40; 3.69; $p = 0.015$) compared to those who do not.

Depersonalization

Respondents who scored higher on adequacy of salary had significantly lower levels of depersonalization scores ($B = -1.68$ 95% C.I -2.79; -0.57; $p = 0.003$).

Personal accomplishment

From the findings indicated in Table 8, respondents who did not carry work home had significantly lower levels of personal accomplishment scores ($B = -5.74$ 95% C.I -10.11; -1.37; $p = 0.010$) compared to those who did. Those with higher scores on support by parents had significantly lower levels of personal accomplishment scores ($B = -1.79$ 95% C.I -3.33; -0.24; $p = 0.024$). Participants who had higher scores on staff development programs had significantly lower levels of personal accomplishment scores ($B = -1.55$

95% C.I -3.04; -0.07; p=0.040).

Factors Associated with Burnout Syndrome

Table 9 depicts the factors associated with burnout syndrome in this study.

Table 4.10: Factors Associated with Burnout Syndrome

| Variable | Category | Burnout Level | | Tests |
|--|--------------------------|---------------|-----------|------------------------------------|
| | | Low | High | |
| Gender | Male | 25(47.2%) | 28(52.8%) | $X^2_{(125, 1)}=0.03$; p=0.873 |
| | Female | 35(48.6%) | 37(51.4%) | |
| Age in years | 21-30 | 18(47.4%) | 20(52.6%) | $X^2_{(125, 2)}=1.41$; p=0.494 |
| | 31-40 | 18(41.9%) | 25(58.1%) | |
| | 41 and above | 24(54.5%) | 20(45.5%) | |
| Marital status | Married/with a Partner | 30(44.8%) | 37(55.2%) | $X^2_{(125, 1)}=0.60$; p=0.438 |
| | Single/without a Partner | 30(51.7%) | 28(48.3%) | |
| Has children | No | 26(74.3%) | 9(25.7%) | $X^2_{(125, 1)}=13.46$; p<0.001 |
| | Yes | 34(37.8%) | 56(62.2%) | |
| Level of education | Certificate | 11(50.0%) | 11(50.0%) | $X^2_{(125, 2)}=0.30$; p=0.860 |
| | Diploma | 36(46.2%) | 42(53.8%) | |
| | Bachelors/masters | 13(52.0%) | 12(48.0%) | |
| Teaching experience | 0-5 years | 18(45.0%) | 22(55.0%) | $X^2_{(125, 3)}=18.37$; p<0.001 |
| | 5-10 | 12(27.3%) | 32(72.7%) | |
| | 10-15 | 19(70.4%) | 8(29.6%) | |
| | 15+ | 11(78.6%) | 3(21.4%) | |
| Lessons taught in week | Less than 35 | 12(75.0%) | 4(25.0%) | $X^2_{(125, 2)}=8.95$; p=0.011 |
| | 35- 40 | 28(37.8%) | 46(62.2%) | |
| | 41+ | 19(57.6%) | 14(42.4%) | |
| Carry work home | No | 10(100.0%) | 0(0.0%) | $X^2_{(125, 1)}=11.78$; p=0.001 |
| | Yes | 50(43.5%) | 65(56.5%) | |
| Teach outside of the official school hours | Yes | 26(39.4%) | 40(60.6%) | $X^2_{(125, 1)}=4.15$; p=0.042 |
| | No | 34(57.6%) | 25(42.4%) | |
| Student discipline | Mean±SD | 2.8±0.7 | 3.2±0.8 | $t_{(122)}=-2.38$; p=0.019 |
| Support by school administration | Mean±SD | 2.8±0.8 | 3.0±0.8 | $t_{(122)}=-1.28$; p=0.205 |
| Support by parents | Mean±SD | 2.8±0.6 | 2.6±0.7 | $t_{(122)}=0.91$; p=0.362 |
| Staff development programs | Mean±SD | 2.5±0.7 | 2.7±0.7 | $t_{(122)}=-1.41$; p=0.160 |

| | | | | |
|------------------------------------|---------|---------|---------|--------------------------------|
| Social/peer support and mentoring | Mean±SD | 2.6±0.7 | 2.5±0.7 | $t_{(122)}=0.59$; p=0.558 |
| Adequacy of salary | Mean±SD | 2.5±0.7 | 2.4±0.6 | $t_{(122)}=0.97$; p=0.335 |
| Opportunity for career progression | Mean±SD | 2.4±0.8 | 2.6±0.7 | $t_{(123)}=-1.18$; p=0.242 |
| Autonomy in decision making | Mean±SD | 2.5±0.9 | 2.6±0.8 | $t_{(122)}=-0.43$; p=0.671 |

The findings indicated in Table 4.9 reveal that among the factors under consideration in this study, having children $X^2 (1)= 13.46$; ($p<0.001$), length of teaching experience $X^2 (3) =18.37$; ($p<0.001$), number of lessons taught in a week $X^2 (2)=8.95$; ($p=0.011$), carrying work home $X^2 (1) =11.78$; ($p=0.001$), teaching outside official school hours $X^2 (1)=4.15$; ($p=0.042$), and student discipline $t_{(122)}=-2.38$; ($p=0.019$) are significantly associated with burnout. Gender, age, marital status, level of education, support by school administration and parents, staff development programs, social/peer support and mentoring, adequacy of salary, opportunity for career progression, and autonomy in decision making did not have a significant association with burnout syndrome.

DISCUSSIONS AND CONCLUSIONS

The purpose of this study was to establish the prevalence of burnout syndrome among Public Primary School Teachers. The results of the study indicated a high prevalence of burnout syndrome among the respondents, with those having high emotional exhaustion at 70.4%, high depersonalization at 93.6%, and low personal accomplishment at 82.4%. Respondents with combined high levels of emotional exhaustion and depersonalization and low level of personal accomplishment were 52%. The rest were at moderate levels of burnout syndrome. These results show that the teachers in Kilimani Zone were experiencing higher levels of burnout syndrome than in other areas where similar studies have been undertaken, except in China where levels are comparable (Arvidsson et al., 2016, Rumschlag, 2017, Heinemann & Heinemann, 2017, Li et al, 2020).

From the results of the study, it was determined that teaching more lessons in a week, teaching outside official hours, and carrying work home increased burnout syndrome significantly. These results concur with Ptáček et al. (2019), whose study found increased workload a contributing factor to the development of burnout syndrome. In a study by Ng'eno (2007) in Kericho, Kenya, where teachers reported experiencing symptoms of burnout syndrome, one of the factors they attributed it to was heavy workload.

The more experience a teacher acquires and improved student discipline significantly reduced the development of burnout syndrome among teachers. These results are in line with Jensen and Solheim (2020), who observed that teachers in classroom environments with poor student discipline have a higher risk of developing burnout syndrome than their peers in high discipline class environments. The results of the study by Burke and Greenglass (1993) are also in support of the position that work stressors are the stronger predictors of burnout syndrome and that demographic characteristics and social support have very little contribution to its development. Maslach and Leiter (2007) noted that organizational factors are more

responsible for teacher burnout syndrome than personal factors. They identified job characteristics that impact the development of burnout syndrome as the quantity and quality of workload. These affect a teacher's job resources and ability to match job demands. Work overload depletes the personal resources required to meet job demands and consistent depletion will lead to burnout syndrome. Larger than optimum class sizes, student indiscipline, and teaching too many lessons overload the resources of a teacher and may lead to the development of burnout syndrome.

Relationship between Burnout Syndrome and Sociodemographic Factors among Primary School Teachers

From the results of this study, having children ($p < 0.001$), length of teaching experience ($p < 0.001$), number of lessons taught in a week ($p = 0.011$), carrying work home ($p = 0.001$), and teaching outside official working hours ($p = 0.042$) were found to contribute to burnout syndrome at a significant level. However, other sociodemographic factors – gender, age, marital status, and level of education – did not significantly contribute to burnout syndrome. From these results, it can be deduced that factors, which draw from the resources of a teacher, whether physical, mental, or emotional, contribute to the development of burnout syndrome.

Having children draws from teachers' resources as having more lessons in a week, teaching outside official working hours, and carrying work home. Neutral factors, in that they neither increase nor reduce the workload, do not have a significant effect on the development of burnout syndrome. Such factors include age, gender, marital status, and level of education. These factors, however, may mitigate the development of burnout; with increasing teaching experience, a teacher improves in skill and acquires better coping skills, hence reducing their chances of developing burnout syndrome.

Similarly, in a study conducted among Namibian teachers, age, gender, marital status, and qualifications did not significantly contribute to burnout syndrome. Nonetheless, the contribution of teaching experience was significant at $p = 0.0270$, with teachers who had been in the profession for a long time experiencing higher levels of burnout syndrome (Louw et al., 2011). This is converse to the results of this study, where teachers with less experience exhibited higher levels of burnout syndrome ($p < 0.001$). These results are similar to Burke and Greenglass's (1993) who found that sociodemographic factors had little contribution to the level of burnout syndrome. Maslach and Leiter's (2007) study results were consistent with the position that the work environment contributes more to the development of burnout syndrome than personal factors.

Conclusion

The study found that there was a high prevalence of burnout syndrome among a majority of public primary school teachers in Kilimani Zone, Westlands Sub-County in Nairobi County. If left unaddressed, this situation may lead to increasingly poor student learning outcomes due to teachers experiencing burnout symptoms, such as poor health, disengagement with students, and minimal effort owing to the perception of reduced personal accomplishment where teachers believe that their effort will not produce any change in their students.

The study also found that the contribution of sociodemographic factors to the development of burnout syndrome among teachers is not as significant as the work environment and school factors. Efforts seeking to improve teachers working conditions and school factors will have a positive effect on avoiding the development of burnout syndrome among the teachers.

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